tissues, parasites, etc.) and archived in a museum where they will be available for a variety of investigations. Museum work is generally poorly understood and unfairly exaggerated, even within the scientific community. The UAM has about 35,000 mammal specimens archived but given the size of Alaska, its complex landscape, and the number of years of collecting this represents, the UAM has a very inadequate and uneven representation of Alaska's mammal diversity. When compared to levels of natural mortality and accidental kills, museum collecting has an insignificant impact on wild populations.

Specimens represent historical populations and their value increases dramatically through time. This is particularly true as the diversity of many localities is degraded. Temporal changes in biotic diversity can be documented effectively only if extensive collections are periodically archived. We have lost the opportunity to document changes in the biota of many areas because no baseline inventory was ever conducted. Through cooperative specimen-based projects, national park biologists have been particularly important in helping to establish baseline data on wild populations in Alaska's relatively undisturbed environments. These data will be invaluable when assessing changes due to human impact and natural disturbance of the environment.

Today, museums are key to a veritable explosion of different kinds of studies on biotic diversity. For instance, in the past two years, 32 loans of more than 1,500 specimens have been made from the Alaska Frozen Tissue Collection (AFTC). The Centers for Disease Control in Atlanta has used 570 AFTC samples from rodents in efforts to understand the history and epidemiology of the Hantavirus disease. Other samples from declining marine mammal populations have been used to test for canine distemper. With PCR (polymerase chain reaction) and other innovations in the study of DNA, we now can examine genetic variation in populations of animals that were collected during different time periods, thus providing a more rigorous view of temporal genetic variation. For example, known contact zones between taxa can be reanalyzed for temporal stability if specimens from the contact zone were collected at regular intervals.

Ancient DNA studies on mammoth specimens from Alaska are underway in a German laboratory. Isotope analysis of bones allows investigators to examine diets of individual specimens, thus opening a whole range of studies to the paleo-ecologist. The effects of climate change or other perturbations on the distributions of species may be critically evaluated only with voucher specimens. These kinds of studies are underway now using museum specimens. We cannot even predict what kinds of questions new technological advances will allow. Currently, the UAM Mammal Collection forms the basis for 11 MS and PhD theses at UAF and at least 12 at other institutions.

Recent cooperative research projects in the UAM Mammal Collection have focused on 1) establishing baseline data on small mammal populations at regular (annual) intervals, 2) the zoogeography of Southeast Alaska, and 3) the relationships between the mammals of Alaska and those of eastern Russia. Field work supported by Glacier Bay National Park and Preserve, Bering Land Bridge National Preserve, Denali National Park and Preserve, Wrangell-St. Elias National Park and Preserve, and Gates of the Arctic National Park and Preserve, and other federal agencies, have been crucial to the development of this resource, now among the finest regional mammal collections worldwide.

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H. Dale Durham

Uses of Museum Collections

As visitors, we bring to a park or museum information and values that greatly affect our vision and focus. We may not see what is before us because our expectations are different or we are letting our previous experiences influence our view. This analysis holds true whether we are casual visitors or researchers.

As educational and resource management professionals, we must consider the various elements of use and impacts on our park museum collections. We acquire, prepare, and preserve museum collections to be used, but our collections may not be used immediately or automatically. The most important use of our collections may come 50 or 100 or 1,000 years from now.

The value and utility of park museum objects depends on their documentation. Few visitors

know how to read objects. Visitors and often scholars need our help in understanding museum collections. This is especially true if we are attempting to have the object state something specific. We must always remember our objects will say the wrong thing if we are not careful in our presentation of them.

A first consideration for the usability of museum objects is their physical condition and composition. Some objects are too fragile or poorly made to withstand the rigors of exhibition.

Uses of museum collections include exhibitions, demonstrations, outreach programs (parks as classrooms), special events, and research. However, the utility and value of museum collections comes more into focus as we begin to question our proposed uses of our objects and specimens. We should always ask several questions before we make objects available for any use.

Are all objects and specimens of equal value?

In many disciplines, objects and specimens are collected to support research. Often a natural scientist will collect specimens for analysis and use without considering their potential long–term value or the possibility of placing them in museum collections. Their long-term value as a benchmark of flora and fauna at a particular park may be determined years after the specimens were collected. An archeologist may determine that certain artifacts collected during a site excavation must be subjected to destructive analysis to determine more about the site and what occurred there. In these instances the documentation of the tests performed are of paramount importance.

Does an object's importance transcend its original purpose?

A look into our past will show us that objects often become symbols. For example, Lincoln's *Gettysburg Address;* the Liberty Bell; *Star Spangled Banner* and the *Constitution* are examples of transcendental values bestowed on objects well beyond their original use.

Do objects and natural history specimens mean different things to different people?

Our national symbols discussed above are examples of this. Other examples are ethnographic materials; historic furnishings in art museums; and, taxidermy mounts in natural history museums.

Are there differing, but equally important, viewpoints on use of museum collections?

Our perspective, vision, and focus greatly influences our viewpoint on appropriate uses of museum collections. Management decisions, tour routes, tour group size, marketing, and special uses force us to compromise or to make decisions to balance competing interests.

To ensure that museum collections are not used inappropriately, criteria should be developed to evaluate proposed use of the museum collection. The most important and hardest question to answer regarding the use of museum objects is: **Why do we want to use it?**

Once we have resolved the "why" question we should consider the following elements of this evaluation criteria:

- Is the proposed use consumptive?
- What will be the effects of use on the object and its proposed surroundings?
- Site Provenance. Is the object directly related to the park and its primary theme?
- Is use of an original object or specimen necessary?
- For what purpose will the object be used?

Often objects are used simply because they are available. In these instances the use is often conjectural, not historically accurate and vague. Too many times we have witnessed Native American ceramic pot shards being passed around as representing a particular culture or event. Or, we have seen objects used to represent a transcending theme such as a cotton bowl to represent a cotton gin and slavery.

One of the most familiar methods of using objects is in permanent and special exhibits. When used in exhibits, objects are said to "flesh out the bare bones of history." In context, objects help communicate ideas.

We can add to an object's interpretive value in many ways. We can exhibit it to show how it works or was used. We may place it with other similar objects to invite comparisons or with dissimilar objects to show contrast.

By labeling an object, it becomes evidence supporting a conclusion or may serve as a symbol of a more abstract idea or linkage to a person or event.

Exhibits help some people understand different concepts. Some exhibits are for enjoyment, others are aesthetically satisfying or have exciting form and color. The strangeness or bizarre nature of other exhibits may stimulate pleasurable feelings or curiosity.

Some exhibits provide comfort by recalling familiar memories. Others evoke stronger emotions.

Living History demonstrations bring more tactile senses into play. Through the use of reproduction objects or durable originals, the public can see first-hand how objects were used.

One of the most challenging uses of objects is as historic furnishings. When used to furnish a historic structure, the object is given the opportunity to convey the lifestyle and personality of the structure's historic occupants. To achieve this lofty goal, care must be taken to ensure that modern hygiene, current societal values, and housekeeping norms are not interjected into the recreated historic scene.

Another pitfall to avoid in managing a furnished historic structure is the rearrangement of the rooms once the furnishing curators leave. Many a tastefully-prepared furnished structure is reduced to a "period room" where the objects are rearranged as an open display. We have all seen the children's room where all the toys and dolls are lined up facing the tour route. Tours of such rearrangements result in nothing more than antique tours where individual objects and their monetary value overshadow the purpose and intent of the carefully recreated scene.

It is incumbent on the park curator, interpreter, and resource management specialist to ensure that museum collections are considered an asset to the park. This can be achieved only by making park museum collections a viable part of the park's resource base both from their resource management and educational values. We must ensure that museum collections and their documentation are consulted when management issues are considered; and we must ensure that museum collections are involved in park programs and activities.

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Elizabeth Banks

Using Resource Management Records

How extensive was the repair work on the interior of the Custom House in Salem in the 1880s, 1950s, 1970s? What problems were encountered in determining the historic paint colors? What photographs taken of the park since its establishment in 1938 show changes in the historic landscape? What park management issues and decisions in the 1930s have continued to be reviewed, questioned, and resolved in different ways? How have water quality issues in the rivers and harbor affected the area in the last 100 years? What park management decisions in the 1930s, 1940s, 1950s have affected the extent of research on historic landscapes, historic plant materials, land use, relationships with park neighbors, etc., that are recurring issues today? What information is contained in the park historians' desk files from the 1930s to the 1970s and how extensively were certain structures, features, and events researched? Is the park at risk of undertaking extensive research today that has already been accomplished?

Invariably the next question is, "What do we have in the files?" Finding the answer depends on the extent of preservation, organization, and access to the park records.

In January 1995, the Northeast Museum Services Center began a two-year project to conduct a Survey of Resource Management Records in the New England Cluster of the Northeast Field Area. This survey is focused on documenting the natural and cultural resource management records in parks and centers. The survey will also review management needs and provide recommendations. Assistance with recommendations will include measures for basic protection and appropriate steps, including transfer of specific records to the National Archives and Records Administration, temporary storage, disposal, or accession into the museum collection.

While it is commonly accepted that museum records that document museum objects should remain in close association with the objects, this concept is less well recognized for other cultural and natural resources such as historic structures and landscapes. Records that document the integrity, history, condition, conservation treatments, and preservation requirements of natural and cultural resources are critical for current and future management. It is well established that archeological field notes, including sketches, maps and photographs, are cataloged with the artifacts from the associated site. Neither the artifacts nor the field notes have much research value without the other. Likewise, researchers cannot understand or extract significant data from architectural fragments without examination of the accompanying documentation. Both the documentation and the artifacts must be preserved to be accessible for research use.

The Researcher's Perspective

Like most agencies, the Park Service often seems unaware that its actions are making his-